



Sınrsız Eđitim ve Arařtırma Dergisi



The Journal of Limitless Education and Research

Temmuz 2021
Cilt 6, Sayı 2

July 2021
Volume 6, Issue 2



Sınırsız Eğitim ve Araştırma Dergisi

Temmuz 2021, Cilt 6, Sayı 2

The Journal of Limitless Education and Research

July 2021, Volume 6, Issue 2

Sahibi

Prof. Dr. Firdevs GÜNEŞ

Owner

Prof. Dr. Firdevs GÜNEŞ

Editör

Doç. Dr. Ayşe Derya IŞIK

Editor in Chief

Assoc. Prof. Dr. Ayşe Derya IŞIK

Editör Yardımcısı

Dr. Çağın KAMIŞÇIOĞLU

Assistant Editor

Dr. Çağın KAMIŞÇIOĞLU

Yazım ve Dil Editörü

Doç. Dr. Bilge BAĞCI AYRANCI

Doç. Dr. Serpil ÖZDEMİR

Dr. İbrahim Halil YURDAKAL

Philologist

Assoc. Prof. Dr. Bilge BAĞCI AYRANCI

Assoc. Prof. Dr. Serpil ÖZDEMİR

Dr. İbrahim Halil YURDAKAL

Yabancı Dil Editörü

Doç. Dr. Gülden TÜM

Doç. Dr. Tanju DEVECİ

Dr. Çağın KAMIŞÇIOĞLU

Foreign Language Specialist

Assoc. Prof. Dr. Gülden TÜM

Assoc. Prof. Dr. Tanju DEVECİ

Dr. Çağın KAMIŞÇIOĞLU

İletişim

Sınırsız Eğitim ve Araştırma Derneği

06590 ANKARA - TÜRKİYE

e-posta: editor@sead.com.tr

sead@sead.com.tr

Contact

Limitless Education and Research Association

06590 ANKARA - TURKEY

e-mail: editor@sead.com.tr

sead@sead.com.tr

Sınırsız Eğitim ve Araştırma Dergisi (SEAD), yılda üç kez yayımlanan uluslararası hakemli bir dergidir.

Yazıların sorumluluğu, yazarlarına aittir.

Journal of Limitless Education and Research(J-LERA) is an international refereed journal published three times a year.

The responsibility lies with the authors of papers.

İNDEKSLER / INDEXED IN



INFORMATION SERVICES

Kapak: Doç. Dr. Ayşe Derya IŞIK-Dr. Barış ÇUKURBAŞI

Editörler Kurulu (Editorial Board)

Computer Education and Instructional Technology Bilgisayar ve Öğretim Teknolojileri Eğitimi	Doç. Dr. Hasan ÖZGÜR	Trakya Üniversitesi, Türkiye
Educational Sciences Eğitim Bilimleri	Doç. Dr. Ayşe ELİÜŞÜK BÜLBÜL Dr. Gülenaz ŞELÇUK Dr. Menekşe ESKİCİ	Necmettin Erbakan Üniversitesi, Türkiye Manisa Celal Bayar Üniversitesi, Türkiye Kırklareli Üniversitesi, Türkiye
Science Fen Eğitimi	Prof. Dr. Nurettin ŞAHİN Dr. Yasemin BÜYÜKŞAHİN	Muğla Sıtkı Koçman Üniversitesi, Türkiye Bartın Üniversitesi, Türkiye
Lifelong Learning Hayat Boyu Öğrenme	Prof. Dr. Firdevs GÜNEŞ Prof. Dr. Thomas R. GILLPATRICK Assoc. Prof. Dr. Tanju DEVECİ	Ankara Üniversitesi, Türkiye Portland State University, USA Khalifa University of Science and Technology, UAE
Teaching Mathematics Matematik Eğitimi	Prof. Dr. Erhan HACİÖMEROĞLU Doç. Dr. Burçin GÖKKURT Dr. Aysun Nüket ELÇİ	Temple University, Japan Bartın Üniversitesi, Türkiye Manisa Celal Bayar Üniversitesi, Türkiye
Pre-School Education Okul Öncesi Eğitimi	Doç. Dr. Neslihan BAY Dr. Burcu ÇABUK	Eskişehir Osmangazi Üniversitesi, Türkiye Ankara Üniversitesi, Türkiye
Primary Education Sınıf Eğitimi	Prof. Dr. Sabri SİDEKLİ Doç. Dr. Oğuzhan KURU Doç. Dr. Özlem BAŞ Doç. Dr. Süleyman Erkam SULAK Doç. Dr. Yalçın BAY	Muğla Sıtkı Koçman Üniversitesi, Türkiye Kahramanmaraş Sütçü İmam Üniversitesi, Türkiye Hacettepe Üniversitesi, Türkiye Ordu Üniversitesi, Türkiye Anadolu Üniversitesi, Türkiye
Teaching Social Studies Sosyal Bilgiler Eğitimi	Doç. Dr. Cüneyit AKAR	Uşak Üniversitesi, Türkiye
Teaching Turkish Türkçe Öğretimi	Prof. Dr. Fatma SUSAR KIRMIZI Doç. Bilge BAĞCI AYRANCI Doç. Dr. Nevin AKKAYA Doç. Dr. Serpil ÖZDEMİR	Pamukkale Üniversitesi, Türkiye Adnan Menderes Üniversitesi, Türkiye Dokuz Eylül Üniversitesi, Türkiye Bartın Üniversitesi, Türkiye
Teaching Turkish to Foreigners Yabancılara Türkçe Öğretimi	Prof. Dr. Apollinaria AVRUTİNA Prof. Dr. Yuu KURIBAYASHI Assoc. Prof. Dr. Galina MISKINIENE Assoc. Prof. Dr. Könül HACIYEVA Assoc. Prof. Dr. Xhemile ABDIU Doç. Dr. Gülden TÜM Lecturer Dr. Feride HATİBOĞLU Lecturer Semahat RESMİ CRAHAY	St. Petersburg State University, Russia Okayama University, Japan Vilnius University, Lithuania Azerbaijan National Academy of Sciences, Azerbaijan Tiran University, Albania Çukurova Üniversitesi, Türkiye University of Pennsylvania, USA PCVO Moderne Talen Gouverneur, Belgium
Foreign Language Education Yabancı Dil Eğitimi	Prof. Dr. Arif SARIÇOBAN Prof. Dr. Işıl ULUÇAM-WEGMANN Prof. Dr. İ. Hakkı MİRİCİ Prof. Dr. İlknur SAVAŞKAN Assoc. Prof. Dr. Christina FREI Dr. Bengü AKSU ATAÇ Dr. Ulaş KAYAPINAR Dr. Nurcan KÖSE	Selçuk Üniversitesi, Türkiye Universität Duisburg-Essen, Germany Hacettepe Üniversitesi, Türkiye Bursa Uludağ Üniversitesi, Türkiye University of Pennsylvania, USA Nevşehir Hacı Bektaş Üniversitesi, Türkiye American University of the Middle East (AUM), Kuwait American University of the Middle East (AUM), Kuwait



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

Yayın Danışma Kurulu (Editorial Advisory Board)

Prof. Dr. A. Işıl ULUÇAM-WEGMANN, Universität Duisburg-Essen, Deutschland

Prof. Dr. Ahmet ATAÇ, Manisa Celal Bayar Üniversitesi, Türkiye

Prof. Dr. Ahmet GÜNŞEN, Trakya Üniversitesi, Türkiye

Prof. Dr. Ahmet KIRKILIÇ, Ağrı Çeçen Üniversitesi, Türkiye

Prof. Dr. Ali Murat GÜLER, Orta Doğu Teknik Üniversitesi, Türkiye

Prof. Dr. Ali YAKICI, Gazi Üniversitesi, Türkiye

Prof. Dr. Apollinaria AVRUTINA, St. Petersburg State University, Russia

Prof. Dr. Arif ÇOBAN, Konya Selçuk Üniversitesi, Türkiye

Prof. Dr. Asuman DUATEPE PAKSU, Pamukkale Üniversitesi, Türkiye

Prof. Dr. Duygu UÇGUN, Pamukkale Üniversitesi, Türkiye

Prof. Dr. Efe AKBULUT, Pamukkale Üniversitesi, Türkiye

Prof. Dr. Erhan Selçuk HACIÖMEROĞLU, Temple University, Japan

Prof. Dr. Erika H. GILSON, Princeton University, USA

Prof. Dr. Erkut KONTER, Dokuz Eylül Üniversitesi, Türkiye

Prof. Dr. Erol DURAN, Uşak Üniversitesi, Türkiye

Prof. Dr. Ersin KIVRAK, Afyon Kocatepe Üniversitesi, Türkiye

Prof. Dr. Esra BUKOVA GÜZEL, Dokuz Eylül Üniversitesi, Türkiye

Prof. Dr. Fatma AÇIK, Gazi Üniversitesi, Türkiye

Prof. Dr. Fatma SUSAR KIRMIZI, Pamukkale Üniversitesi, Türkiye

Prof. Dr. Firdevs GÜNEŞ, Ankara Üniversitesi, Türkiye

Prof. Dr. Fredricka L. STOLLER, Northern Arizona University, USA

Prof. Dr. Gizem SAYGILI, Karaman Üniversitesi, Türkiye

Prof. Dr. Hakan UŞAKLI, Sinop Üniversitesi, Türkiye

Prof. Dr. Hüseyin KIRAN, Pamukkale Üniversitesi, Türkiye

Prof. Dr. İhsan KALENDEROĞLU, Gazi Üniversitesi, Türkiye

Prof. Dr. İlknur SAVAŞKAN, Bursa Uludağ Üniversitesi, Türkiye

Prof. Dr. İlze IVANOVA, University of Latvia, Latvia

Prof. Dr. İsmail MİRİCİ, Hacettepe Üniversitesi, Türkiye

Prof. Dr. Jack C RICHARDS, University of Sydney, Avustralia

Prof. Dr. Kamil İŞERİ, Dokuz Eylül Üniversitesi, Türkiye

Prof. Dr. Levent MERCİN, Kütahya Dumlupınar Üniversitesi, Türkiye



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

- Prof. Dr. Leyla KARAHAN, Gazi Üniversitesi, Türkiye
Prof. Dr. Liudmila LESCHEVA, Minsk State Linguistics University, Belarus
Prof. Dr. Mehmet Ali AKINCI, Rouen University, France
Prof. Dr. Meliha YILMAZ, Gazi Üniversitesi, Türkiye
Prof. Dr. Merih Tekin BENDER, Ege Üniversitesi, Türkiye
Prof. Dr. Mustafa Murat İNCEOĞLU, Ege Üniversitesi, Türkiye
Prof. Dr. Nergis BİRAY, Pamukkale Üniversitesi, Türkiye
Prof. Dr. Nesrin İŞİKOĞLU ERDOĞAN, Pamukkale Üniversitesi, Türkiye
Prof. Dr. Nezir TEMUR, Gazi Üniversitesi, Türkiye
Prof. Dr. Nil DUBAN, Afyon Kocatepe Üniversitesi, Türkiye
Prof. Dr. Nurettin ŞAHİN, Muğla Sıtkı Koçman Üniversitesi, Türkiye
Prof. Dr. Pınar GİRMEN, Eskişehir Osmangazi Üniversitesi, Türkiye
Prof. Dr. Sabri SİDEKLİ, Muğla Sıtkı Koçman Üniversitesi, Türkiye
Prof. Dr. Serap BUYURGAN, Başkent Üniversitesi, Türkiye
Prof. Dr. Serdar TUNA, Mehmet Akif Ersoy Üniversitesi, Türkiye
Prof. Dr. Seyfi ÖZGÜZEL, Çukurova Üniversitesi, Türkiye
Prof. Dr. Songül ALTINIŞIK, TODAİE Emekli Öğretim Üyesi, Türkiye
Prof. Dr. Süleyman İNAN, Pamukkale Üniversitesi, Türkiye
Prof. Dr. Şafak ULUÇINAR SAĞIR, Amasya Üniversitesi, Türkiye
Prof. Dr. Şahin KAPIKIRAN, Pamukkale Üniversitesi, Türkiye
Prof. Dr. Şerif Ali BOZKAPLAN, Dokuz Eylül Üniversitesi, Türkiye
Prof. Dr. Tahir KODAL, Pamukkale Üniversitesi, Türkiye
Prof. Dr. Tazegül DEMİR ATALAY, Kafkas Üniversitesi, Türkiye
Prof. Dr. Thomas R. GILLPATRICK, Portland State University, USA.
Prof. Dr. Todd Alan PRICE, National-Louis University, USA
Prof. Dr. Turan PAKER, Pamukkale Üniversitesi, Türkiye
Prof. Dr. Umut SARAÇ, Bartın Üniversitesi, Türkiye
Prof. Dr. William GRABE, Northern Arizona University, USA
Prof. Dr. Yasemin KIRKGÖZ, Çukurova Üniversitesi, Türkiye
Prof. Dr. Yuu KURIBAYASHI, Okayama University, JAPAN
Assoc. Prof. Dr. Sevinc QASİMOVA, Bakü State University, Azerbaijan
Assoc. Prof. Dr. Carol GRIFFITHS, University of Leeds, UK



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

- Assoc. Prof. Dr. Christina FREI, University of Pennsylvania, USA
Assoc. Prof. Dr. Könül HACIYEVA, Azerbaijan National Academy of Sciences, Azerbaijan
Assoc. Prof. Dr. Salah TROUDI, University of Exeter, UK
Assoc. Prof. Dr. Suzan CANHASI, University of Prishtina, Kosovo
Assoc. Prof. Dr. Şaziye YAMAN, American University of the Middle East (AUM), Kuwait
Assoc. Prof. Dr. Tanju DEVECİ, Khalifa University of Science and Technology, UAE
Assoc. Prof. Dr. Xhemile ABDIU, Tiran University, Albania
Assoc. Prof. Dr. Galina MISKINIENE, Vilnius University, Lithuania
Assoc. Prof. Dr. Spartak KADIU, Tiran University, Albania
Doç. Dr. Abdullah ŞAHİN, Çanakkale Onsekiz Mart Üniversitesi, Türkiye
Doç. Dr. Abdurrahman ŞAHİN, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Anıl ERTOK ATMACA, Karabük Üniversitesi, Türkiye
Doç. Dr. Aydın ZOR, Akdeniz Üniversitesi, Türkiye
Doç. Dr. Ayşe Derya IŞIK, Bartın Üniversitesi, Türkiye
Doç. Dr. Ayşe ELİÜŞÜK BÜLBÜL, Selçuk Üniversitesi, Türkiye
Doç. Dr. Behice VARIŞOĞLU, Gaziosmanpaşa Üniversitesi, Türkiye
Doç. Dr. Berna Cantürk GÜNHAN, Dokuz Eylül Üniversitesi, Türkiye
Doç. Dr. Bilge AYRANCI, Adnan Menderes Üniversitesi, Türkiye
Doç. Dr. Burçin GÖKKURT ÖZDEMİR, Bartın Üniversitesi, Türkiye
Doç. Dr. Cüneyit AKAR, Uşak Üniversitesi, Türkiye
Doç. Dr. Demet GİRGİN, Balıkesir Üniversitesi, Türkiye
Doç. Dr. Dilek FİDAN, Kocaeli Üniversitesi, Türkiye
Doç. Dr. Esin Yağmur ŞAHİN, Çanakkale Onsekiz Mart Üniversitesi, Türkiye
Doç. Dr. Feryal BEYKAL ORHUN, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Filiz METE, Hacettepe Üniversitesi, Türkiye
Doç. Dr. Fulya ÜNAL TOPÇUOĞLU, Kütahya Dumlupınar Üniversitesi, Türkiye
Doç. Dr. Funda ÖRGE YAŞAR, Çanakkale Onsekiz Mart Üniversitesi, Türkiye
Doç. Dr. Gülден TÜM, Çukurova Üniversitesi, Türkiye
Doç. Dr. Güliz AYDIN, Muğla Sıtkı Koçman Üniversitesi, Türkiye
Doç. Dr. Hasan ÖZGÜR, Trakya Üniversitesi, Türkiye
Doç. Dr. Hüseyin ANILAN, Eskişehir Osmangazi Üniversitesi, Türkiye
Doç. Dr. İbrahim COŞKUN, Trakya Üniversitesi, Türkiye



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

- Doç. Dr. İbrahim Halil YURDAKAL, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Mehmet Celal VARIŞOĞLU, Gaziosmanpaşa Üniversitesi, Türkiye
Doç. Dr. Melek ŞAHAN, Ege Üniversitesi, Türkiye
Doç. Dr. Meltem DEMİRCİ KATRANCI, Gazi Üniversitesi, Türkiye
Doç. Dr. Menekşe ESKİCİ, Kırklareli Üniversitesi, Türkiye
Doç. Dr. Nazan KARAPINAR, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Neslihan BAY, Eskişehir Osmangazi Üniversitesi, Türkiye
Doç. Dr. Nevin AKKAYA, Dokuz Eylül Üniversitesi, Türkiye
Doç. Dr. Orhan KUMRAL, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Özlem BAŞ, Hacettepe Üniversitesi, Türkiye
Doç. Dr. Ruhan KARADAĞ, Adıyaman Üniversitesi, Türkiye
Doç. Dr. Salim PİLAV, Kırıkkale Üniversitesi, Türkiye
Doç. Dr. Sayım AKTAY, Muğla Sıtkı Koçman Üniversitesi, Türkiye
Doç. Dr. Sevgi ÖZGÜNGÖR, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Sibel KAYA, Kocaeli Üniversitesi, Türkiye
Doç. Dr. Süleyman Erkam SULAK, Ordu Üniversitesi, Türkiye
Doç. Dr. Ufuk YAĞCI, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Vesile ALKAN, Pamukkale Üniversitesi, Türkiye
Doç. Dr. Yalçın BAY, Anadolu Üniversitesi, Türkiye
Dr. Öğr. Üyesi Aysun Nüket ELÇİ, Manisa Celal Bayar Üniversitesi, Türkiye
Dr. Öğr. Üyesi Banu ÖZDEMİR, Kütahya Dumlupınar Üniversitesi, Türkiye
Dr. Öğr. Üyesi Barış ÇUKURBAŞI, Manisa Celal Bayar Üniversitesi, Türkiye
Dr. Öğr. Üyesi Emel GÜVEY AKTAY, Muğla Sıtkı Koçman Üniversitesi, Türkiye
Dr. Öğr. Üyesi Gülenaz SELÇUK, Manisa Celal Bayar Üniversitesi, Türkiye
Dr. Öğr. Üyesi Hasan Hüseyin MUTLU, Ordu Üniversitesi, Türkiye
Dr. Öğr. Üyesi Nil Didem ŞİMŞEK, Süleyman Demirel Üniversitesi, Türkiye
Dr. Öğr. Üyesi Seçil KARTOPU, Ankara Yıldırım Beyazıt Üniversitesi, Türkiye
Dr. Öğr. Üyesi Şahin ŞİMŞEK, Kastamonu Üniversitesi, Türkiye
Dr. Öğr. Üyesi Üzeyir SÜĞÜMLÜ, Ordu Üniversitesi, Türkiye
Dr. Ahmet BAŞKAN, Hitit Üniversitesi, Türkiye
Dr. Bağdagül MUSSA, University of Jordan, Jordan
Dr. Çağın KAMIŞCIOĞLU, Ankara Üniversitesi, Türkiye



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

Dr. Düriye GÖKÇEBAĞ, University of Cyprus, Language Centre, Kıbrıs

Dr. Erdost ÖZKAN, Pamukkale Üniversitesi, Türkiye

Dr. Feride HATİBOĞLU, University of Pennsylvania, USA

Dr. Hanane BENALI, American University of the Middle East (AUM), Kuwait

Dr. Nurcan KÖSE, American University of the Middle East (AUM), Kuwait

Dr. Ulaş KAYAPINAR, American University of the Middle East (AUM), Kuwait

Dr. Nader AYİŞH, Khalifa University of Science and Technology, UAE



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

Bu Sayının Hakemleri (Referees of This Issue)

Assoc. Prof. Dr. Tanju DEVECİ, Khalifa University of Science and Technology, UAE

Doç. Dr. Bilge BAĞCI AYRANCI, Aydın Adnan Menderes Üniversitesi

Doç. Dr. Elçin ESMER, Mersin Üniversitesi

Doç. Dr. Gökhan ÇETİNKAYA, Pamukkale Üniversitesi

Doç. Dr. Gülden TÜM, Çukurova Üniversitesi

Doç. Dr. Gülten GENÇ, İnönü Üniversitesi

Doç. Dr. Nevin AKKAYA, Dokuz Eylül Üniversitesi

Doç. Dr. Ömer Tuğrul KARA, Çukurova Üniversitesi

Doç. Dr. Serpil ÖZDEMİR, Bartın Üniversitesi

Doç. Dr. Süleyman Erkam SULAK, Ordu Üniversitesi

Dr. Öğr. Üyesi Duygu İŞPINAR AKÇAYOĞLU, Adana Alparslan Türkeş Bilim ve Teknoloji Üniversitesi

Dr. Öğr. Üyesi Kaine GÜLÖZER, Bartın Üniversitesi

Dr. Ahmet BAŞKAN, Hitit Üniversitesi



Sınrsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

Dear Readers,

We are delighted to present you the July 2021 issue of the Journal of Limitless Education and Research.

Our journal has been published continually by the Limitless Education and Research Association (SEAD) since 2016. The aim of our journal is to publish theoretical and applied studies in the field of education and research, to share scientific information at national and international level, create an environment for the production of new information, announce innovations and thereby contribute to scientific production in our country. For this purpose, priority is given to qualified research and review publications in our Journal.

In our journal, the Editorial Board, the Scientific Committee, and the Referee Board members, who meticulously evaluate the manuscripts, are formed by academics that are prestigious experts in their field. Our journal that is strengthened much more with the priceless contributions of the scientists who serve on the boards, authors and you readers, continues to be published without compromising its academic quality.

The Journal of Limitless Education and Research is published three times a year, scanned in various national and international indexes, and it receives numerous citations. Our journal, which had a SOBIAD impact factor of 0.3 in 2019, will be published both in Turkish and English languages as of this issue. Thus, it is aimed at reaching wider audience.

We wish our journal to contribute to the scientific field, and acknowledge all editors, authors and referees who contributed to its preparation. With our best regards.

LIMITLESS EDUCATION AND RESEARCH ASSOCIATION



Sınırsız Eğitim ve Araştırma Dergisi, Cilt 6, Sayı 2

The Journal of Limitless Education and Research, Volume 6, Issue 2

Sevgili Okurlar,

Sizlere Sınırsız Eğitim ve Araştırma Dergisinin Temmuz 2021 sayısını sunmaktan büyük mutluluk duyuyoruz.

Dergimiz, Sınırsız Eğitim ve Araştırma Derneği tarafından 2016 yılından bu yana kesintisiz olarak yayınlanmaktadır. Amacımız, eğitim ve araştırma alanındaki kuramsal ve uygulamalı çalışmaları yayınlamak, bilimsel bilgileri ulusal ve uluslararası düzeyde paylaşmak, yeni bilgiler üretilmesine ortam hazırlamak, yenilikleri duyurmak ve böylece ülkemizdeki bilimsel üretime katkı sağlamaktır. Bu amaçla Dergimizde nitelikli araştırma ve derleme yayınlarına öncelik verilmektedir.

Dergimizin Editör Kurulu, Bilim Kurulu ve yayınları titizlikle değerlendiren Hakem Kurulu üyeleri alanında uzman akademisyenlerden oluşmaktadır. Kurullarda görev yapan bilim insanları, yazarlar ve siz okurların değerli katkılarıyla her sayıda biraz daha güçlenen Dergimiz, akademik kalitesinden ödün vermeden yayın hayatını sürdürmektedir.

Sınırsız Eğitim ve Araştırma Dergisi yılda üç sayı olarak yayınlanmakta, çeşitli ulusal ve uluslararası düzeydeki indekslerde taranmakta, çok sayıda atıf almaktadır. 2019 yılı SOBIAD etki faktörü 0,3 olan Dergimiz, artık hem Türkçe hem de İngilizce yayınlanmaktadır. Böylece daha geniş bir okur kitlesine ulaşılmaya çalışılmaktadır.

Dergimizin bilimsel alana katkılar getirmesini diliyor, hazırlanmasında emeği geçen bütün editör, yazar ve hakemlere teşekkür ediyoruz. Saygılarımızla.

SINIRSIZ EĞİTİM VE ARAŞTIRMA DERNEĞİ

TABLE OF CONTENTS

İÇİNDEKİLER

Article Type: Research Article

Makale Türü: Araştırma

Firdevs GÜNEŞ

Sound Methods in Primary Reading and Writing Teaching

İlkokuma Yazma Öğretiminde Ses Yöntemleri

179-220

Faris HOCAOĞLU, Yasemin KIRKGÖZ

Investigating the First Year Experiences of Novice EFL Teachers in Public and Private Schools

Devlet Okullarında ve Özel Okullarda Çalışan Mesleğe Yeni Başlayan İngilizce Öğretmenlerinin İlk Yıl Deneyimlerinin İncelenmesi

221-247

Firdevs GÜNEŞ, Ayşe Derya IŞIK

Sound Properties and Training of Turkish

248-262

Recai ÜNAL

A Confusing Term / Concept in Modern Turkey Turkish (MTT) Grammar Teaching: The Element Which Is Out of Sentence

Çağdaş Türkiye Türkçesi (ÇTT) Dil Düzenegi Öğretiminde Kafa Karıştırıcı Bir Terim / Kavram: Cümle Dışı Unsur / Öge

263-290

Ramazan ÇAVUŞOĞLU, Ayşe Derya IŞIK

Assessment and Evaluation Process of Turkish Language Teaching Centers (TÖMER)

Türkçe Öğretim Merkezlerinin (TÖMER) Ölçme ve Değerlendirme Süreçleri

291-315



The Journal of Limitless Education and Research
Volume 6, Issue 2, 248 - 262

DOI: 10.29250/sead.958194

Received: 27.06.2021

Article Type: Research

Accepted: 15.07.2021

Sound Properties and Training of Turkish

Prof. Dr. Firdevs GÜNEŞ, Ankara University, firdevs.gunes@gmail.com

Assoc. Prof. Dr. Ayşe Derya IŞIK, Bartın University, aysederyaisik@gmail.com

Abstract: Nowadays, the order of sounds to be taught for effective language teaching is done, priority is given to frequently used sounds in the language. In this study, the characteristics of the sounds in Turkish are tried to be determined for effective teaching reading and writing. For this purpose, a total of 120,151 words and 788,316 letters from the Turkish Language Association Turkish Dictionary was investigated. At the end of the research, it was found out that the vowels commonly used in Turkish were “a” and “e” whereas the consonant was “k”. It was sorted out that “a, e, k, i, l, m, r, n, t, l” were used as the top 10 commonly sounds and more than half of the texts were written utilizing these letters. It was found that the vowels made up a rate of 41.22%, and consonants a rate of 58.78%, which most of the vowels are back vowel while consonants are continuous and voiced consonant. This makes it easier to create melodies with sounds, to prolong and upgrade sounds, to compose rhythm, to emphasize intonation, to play with sounds; therefore, it promotes the learning process more enjoyable.

Keywords: Turkish, sound, letter, frequency of use, literacy training.

Cited in: Güneş, F. & Işık, A. D. (2021). Sound properties and training of Turkish. *The Journal of Limitless Education and Research, Sınırsız Eğitim ve Araştırma Dergisi*, 6(2), 248-262. DOI: 10.29250/sead.958194.

First Author ORCID: 0000-0002-9449-8617

Second Author ORCID: 0000-0002-9867-0904

1. Introduction

People produce various sounds with their sound organs and communicates through these sounds since they are the most important components of language and the smallest part of the language. Speech sounds and language are combined with each other to form syllables and words and determine the characteristics and structure of the language. The sounds are distinguished into various genres such as vowel and consonant, back and front. To scientific studies, order of sounds is alphabetically constituted. Yet, the alphabetical order and the sound system of each language have distinctive features.

Learning sounds begins in mother's womb. Accordingly, babies produce some sounds from the first months after birth, and it continues within the period of pre-school education. Recognizing all sounds in language, distinguishing each one, improving reading and writing skills are aimed in the period of primary school. The recognition of sounds is the beginning of these studies because it is impossible to learn literacy without learning the sounds and sounds of the letters. Research concerning this topic emphasize that some basic skills need to be developed to be good readers. These skills are ranged such as distinguishing between sounds in languages, linking between sounds and letters, recognizing letters, syllables, and words easily, reading fluently, learning the meaning of new words, and understanding what they read. In order to gain these skills at an early age, periodic studies are planned in five areas. These are sound awareness, exploring alphabetical relations (matching letters and sounds), recognizing the word, creating a mental dictionary, reading fluently and understanding texts (Armbruster & Osborn, 2001; Béatrix Köhler & Martin, 2002; National Reading Panel, 2000).

The beginning of literacy training is sound awareness, which is to gain skills such as being sensitive to sounds, recognition and distinguishing of sounds of words, merging, and changing sounds and syllables. According to Gombert (1992), sound awareness is the skill of identifying and changing the elements of language. It also requires mental processes such as thinking, recognizing, distinguishing, paying attention, discovering, realizing the sounds of language in order to raise children' awareness about the elements of the word. Owing to this skill, a child not only focuses his/her attention on words, recognizes any word, learns that the word is composed of sounds and syllables but also he separates syllables, combines them, produces new words by using sound units. This awareness brings the child to relate and to match sounds to letters, to recognize, to read and to write the letters, and to learn written syllables and words in the literacy training process. Sound awareness training is mandatory as all voices are written in

alphabetical languages. Ziegler and Goswami (2005) argue that the study of sound awareness and alphabetical principles instruction for reading in alphabetical languages is a compulsory priority, even the heart of learning.

Practice to explore the relationships between the sounds and letters is the most important aspect of learning process in recognizing written words. This sort of practice is easier especially in the languages in which the sound-writing relationship is regular. Experts such as Ball (1997), Hurford, (1994), Lacert and Colé, (2000), Sprenger-Charolles (2003) highlights that the sound consciousness facilitates the learning process of word recognition and reading. According to Morais (2002), various problems arise in the teaching of literacy training when the sound and the letter relation are unestablished. Children who cannot distinguish the sounds and learn the relationship between the sounds and the letters have difficulty in literacy training. Research indicate that there is a direct relationship between the development of sound awareness and literacy training, and sound awareness studies should be suggested at initial stages or at an early age (Stanké, 2001).

According to the principles of sound awareness, sounds have some features. These features are effective for children to learn sounds; hence, these features are taken into consideration during the training process. According to the principles of sound awareness;

- Vowels such as “a, e, i, o, u” are easier to learn than the other vowels.
- Introducing and teaching vowels is easier than consonants.
- Teaching the continuous (prolonged) consonants are easier than for discontinuous consonants. For example, continuous consonants such as “ffff” and “şşşş” are taught more easily than discontinuous consonants such as “k” and “p”.
- In the process of word recognition, children first recognize consonants at the beginning of the word, then the consonants at the end and later in the middle (Gunes, 2007).

The importance of sounds and giving priority in the language teaching process is also revealed in brain research. According to Sprenger-Charolles (2003), in the language learning process, neurons first process verbal language and children learn written language by using this information. In other words, verbal language-based encodings are used in the process of literacy training. For this reason, giving priority to sounds and establishing regular links between sounds and letters make it very useful to develop reading and writing skills.

In recent years, researchers such as Stanislas Dehaene, Caroline Huron, J. Morais, Liliane Sprenger-Charolles, J.C. Ziegler, U. Goswami have identified some principles- namely “the principles of literacy training”- to be considered in the first literacy teaching. The purposes of these are that children should know the written words fast, understand what they read, read to learn, enjoy reading, become independent readers and use mental resources effectively. These principles are to teach alphabetic codes, to advance logically and systematically, to improve reading and writing skills, to prepare qualified activities, to adapt the text to the child level. What is emphasized is that sounds, letters, syllables, words, and texts to be taught should be chosen carefully, and frequently used items be given priority to improve students' reading and writing skills (Dehaene, 2011). Thus, literacy training approach based on frequently used elements in language has come to the fore.

With this understanding, frequently used sounds, letters, syllables, and words lists have been prepared in languages such as German, French, English, and Spanish. This is also important and necessary for the Turkish language, which is an alphabetical language. Turkish is an end-to-end language with various richness in terms of sound, vocabulary and language structure. It is known that the properties of Turkish language such as sound richness, sound-letter relation, syllable and word frequency, concrete-abstract provide various benefits in the teaching process. However, the order of teaching of sounds, letters, syllables and words in Turkish was not based on scientific studies.

2. Objectives

In this study, it is aimed to determine the sound properties of Turkish, the relationship between sound and letter, the frequency of use of sounds, and the usage status of vowels and consonants in Turkish. In the second stage, the attention of the sound and letter rankings were drawn to make it easy teaching of Turkish. With the purpose in mind, the following answer to questions was investigated.

1. What are the sound properties of Turkish?
 - a. What is the relation between sound and letters?
 - b. What is the frequency of sounds?
 - c. What is the case of using vowels?
 - d. What is the case of using consonants?
2. How should be the sound ranking for teaching Turkish easily?

3. Methods

In this research, the properties of Turkish sounds and letters were examined through a document review method which is qualitative research method. For this purpose, words in Turkish Dictionary and Dictionary of Person Names published by Turkish Language Association was investigated.

3.1. Wordpool

For the purposes of the research, a wordpool was created to collect data. Words given at the beginning of 77.005 item in the 11th edition of Turkish Dictionary published in 2011 by Turkish Language Society (TDK, 2011) and words in the Person Names Dictionary are taken into the wordpool. These are the principles for creating a word pool.

Words given at the beginning of 77.005 item in the 11th edition of Turkish Dictionary published in 2011 by Turkish Language Society was examined, as compared to 2017 Current Turkish Dictionary, and missing words, idioms, compound words, and proverbs have been added.

1. Chemistry formulas and abbreviations have been omitted.
2. The items contained derivational morpheme and inflectional morpheme was removed.
3. The explanations given against the items were removed.
4. The items containing noun-morpheme were taken as is.
5. The items containing currency names, horoscope names and chemistry terms were taken as is.
6. At the end of this process, the remaining 74,914 words were transferred to the wordpool.
7. The items containing compound were taken as is. However, each independent unit in the compound, idioms, and proverbs written separately is counted as an independent word.
8. 110,452 words in the wordpool after the evaluation are listed in alphabetical order.
9. Then the names in the Person Names Dictionary are added to the wordpool. 9,699 names in this dictionary are taken as is.

10. Thus, the word pool is composed of a total of 120,151 words and 788,316 letters with the words of 110,452 words in Turkish Dictionary and 9,699 words in the Dictionary of Person Names.

3.2. Data Analysis

Words are in the wordpool was analyzed through Ms. Word, Ms. Excel, Simple Concordance Program and SPSS. MS Word was used prepare the data for analysis, Ms. Excel was used merge and separation data, Simple Concordance Program and SPSS programs were used calculate frequencies and percentages. The results of the analysis were interpreted by using frequency and percentage of descriptive statistical methods.

4. Results

The findings obtained in the research are to be given regarding the order of research questions within five headings: The Relationship Between Sound and Letter, The Use of Sounds, The Use of Vowels, The Use of Consonants, and The Sound Ranking for Teaching.

4.1. The Relationship Between Sound and Letter

The number, type and properties of sounds/letters in an alphabet is important for the literacy training. The low number of sounds and letters facilitates literacy training, the excessive number of sounds and letters prolongs this process. In this respect, it is seen that there are around 6000 languages in the world, each of which has its own sound system. The sound system is one of the most important features that distinguish a language from other languages. The sound system contains all the sounds, types and properties of sounds in the language. Each of these is important and requires good learning to speak a language. In addition, the sound system is used to distinguish between the sounds of words during speaking, listening, reading and writing. In short, the sound system is an important source for the production and perception of words, and it allows the sound to be easily perceived, heard and distinguished. (Demolin, 2010).

According to research, there are more than 1 billion sounds in the languages in the world. Researchers such as Maddieson (1984), Maddieson and Precoda (1990) studied the sound system of 451 languages of various continents, regions, and languages. At the end of their study, they found a total of 920 sounds. On the other hand, the type and number of sounds vary according to language. Research indicate that there is a minimum of 12 sounds, a maximum of 141 sounds in the world languages. However, it is seen that the average number is around 30, and this is considered a common number (Demolin, 2010).

The vowel and consonant distribution of the sound in the language is also important. The number of vowels and consonants in each language is different. In most languages, the number of consonants is more than the number of vowels. However, there are languages that do not comply with this rule. The number of consonants in languages varies between 6 and 95, but there are 22 consonants on average. When the European languages are considered, it is seen that the number of sounds is at average levels. For example, there are 40 sounds in German, 36 sounds in French, 49 sounds in English, 25 sounds in Italian. (Jaffré & Fayol, 1997). When letters, sounds, and writing units are examined in European languages: There are 40 sounds in German, these are written with 26 letters and 85 formats; there are 36 sounds, written with 26 letters and 130 formats in French; there are 49 sounds, written with 26 letters and 1140 formats in English; and there are 25 sounds, written with 21 letters and 33 formats in Italian (Gunes & Isik, 2018a).

In our country, in 1928, the letter revolution was made under the leadership of Atatürk. The new Turkish letters were adopted by the Law on Acceptance and Application of Turkish Letters dated on the 01.11.1928 and numbered 1353. According to this law, there are 29 letters in the Turkish alphabet, 8 of which are vowels and 21 are consonants. Despite the use of Latin letters in the Turkish alphabet, there are no letters like x, q, w. Besides, in Turkish, there are letters such as ç, ğ, ı, ö, ş, ü which are not used in western languages. These letters are written in the same format as c, g, i, o, s, u except dots. The use of similar letter shapes in alphabet facilitates literacy training and increases writing speed. In other words, 12 letters such as c, ç, g, ğ, ı, i, o, ö, s, ş, u, ü are similar to each other in Turkish, so the teaching of writing is easier and the number of letters to be taught falls from 29 to 23. This facilitates the learning process and reduces the mental load.

In Turkish, each sound is indicated by a letter and each letter is vocalized by one sound. So there is a one-to-one relationship between the letter and the sound in the Turkish alphabet. Turkish alphabet is arranged as the most ideal sound and letter relation. This situation is superior in fields such as literacy training, developing language and mental skills, and using a keyboard. In some languages, the same sounds are written in different letters or groups of letters. For example, while the sound “o” is written with the letter “o” in Turkish, it is written in four different formats: “o, au, eau, eaux” in French. The “f” sound is written with “f, ff, ph” and the “ş” sound is written “ch” in French (Gunes, 2016). In some cases, one letter is used for different sounds. For example, the letter “c” corresponds to sometimes “s” sound sometimes “k” sound.

These spelling differences in languages such as English and French bring loads to students, negatively affecting the process and skills of the literacy training. However, in languages such as Finnish, Turkish, Italian, Spanish, the letters of the alphabet become systematic; most of the sounds are written as they are read and are read as they are written (Québec, 2011).

The compatibility rate between sound and letters is also important. This compatibility is 100% in Turkish and in some languages, it is different half-and-half. In English and French, there is no regular relationship between sounds and letters and 50% of the words are not written as they are read and they are not read as written. For example, in French, letter “s” is unreadable in the word “Palais” (pale). During reading, the vocalization of the letters is 48% in English and 94% in French. Writing a sound in various letters, reading a letter in various sounds increases the student's mental load and in the process of reading the student is devoted the majority of the mental energy to establishing the relationship between the sound and the letter. In short, German, French, and English are not among the easily learned languages (Jaffré & Fayol, 1997). In Turkish, however, there is a regular relationship between sounds and letters, each sound is written in a letter, each letter is read in a sound. This issue is also noted in the CERL research conducted by the OECD. In the OECD reports, it is said that it is faster to write the words heard in languages such as Turkish and Finnish, where each sound is written with a letter (OCDE, CERL, Ontario, 2007). This structure provides the Turkish language to be superior to most languages in terms of teaching and learning in an easy way.

4.2. The Use of Sounds

In order to determine the properties of the sounds used in Turkish, a total of 788,316 letters in 120,151 words were examined. Then, the alphabetical distribution of 788,316 letters was made as given in Table 1.

Table 1.

Distribution of Turkish Sounds

Sound	Number (N)	Percent (%)	Sound	Number (N)	Percent (%)
A	104,545	13.26	M	47,769	6.06
B	16,576	2.10	N	38,751	4.92
C	9,128	1.16	O	17,115	2.17
Ç	10,896	1.38	Ö	6,567	0.83
D	19,357	2.46	P	9,659	1.23
E	70,655	8.96	R	43,473	5.51
F	6,394	0.81	S	26,565	3.37
G	11,529	1.46	Ş	15,122	1.92
Ğ	7,055	0.89	T	35,438	4.50
H	9,532	1.21	U	22,983	2.92
I	35,160	4.46	Ü	15,992	2.03
i	51,957	6.59	V	7,783	0.99
J	728	0.09	Y	19,872	2.52

K	62,102	7.88	Z	14,305	1.81
L	51,308	6.51	Total	788,316	100.00

As seen in Table 1, “a” sound is used at a rate of 13.26% in Turkish. This is followed by the “e” sound with a rate of 8.96%. They are followed by the “k” sound with a rate of 7.88%. In other words, the widest vowels used in Turkish are “a” and “e” whereas the consonant is “k”. The total usage rate of these three sounds is 30.10%. This indicates that one third (30%) of the Turkish texts are written with “a”, “e” and “k”.

When the sounds in Turkish are listed according to their usage rate, it appears “aekil mnrntı suydo büşz gçph cvğöfj”. In the first five, there are 3 vowels and 2 consonants and there are 4 vowels and 6 consonants in the first ten. The least used sounds are “v, ğ, ö, f and j”. This situation suggests that “a, e, k, i, l, m, r, n, t, ı” sounds should be taught at the first, and “v, ğ, ö, f, j” sounds should be taught at the last.

There are 8 vowels (a, e, i, ı, o, ö, u, ü) and 21 consonants (b, c, ç, d, f, g, ğ, h, j, k, l, m, n, p, r, s, ş, t, v, y, z) in Turkish. Based on the data in Table 1, it is observed that vowels are used at a rate of 41.22%, and consonants are used at a rate of 58.78% in Turkish. The comparison of vowel and consonant letters with other languages was examined in the research conducted by Gunes and Isik (2018b). At the end of the research, it was determined that vowels are used at a rate of 37.98% in English and at a rate of 38.36% in German, the use of vowels in English and German is 3% lower than in Turkish, the use of vowels and consonants in French and Turkish is close, but the rates of Spanish and Italian pass through all languages. The rate of consonants use was examined in research and it was found that the consonant was used in English with 62.02% and in German with 61.64%. This situation makes literacy training difficult. A large number of sounds and frequent use in a language facilitates the literacy training. When this situation is compared with other languages, it is understood that Turkish is in very good condition. As a result, the Turkish seems to be superior to English and German, close to French in terms of using vowels.

4.3. The Use of Vowels

When Table 1 is examined regarding the use of vowels in Turkish, it is observed that the most “a” and “e” sound is used. They are followed by “ı” and “i” sounds. The total usage rate of these vowels is 33.27%. In other words, one-third of the sounds commonly used in Turkish appear “a, e, i, and ı”. These are followed by “u, o, ü, and ö” and the total usage rate is 7.95%.

The case to be back or front of vowels used in Turkish was also examined and the results are given in Table 2.

Table 2.

Frequency of Use of Back and Front Vowels in Turkish

Vowels	Number (N)	Percent (%)	Group Percent (%)
Back vowels (a,ı,u,o)	179,803	55.32	22.81
Front vowels (e,i,ü,ö)	145,171	44.68	18.41
Total	324,974	100.00	41.22

As seen in Table 2, more than half of the vowels in Turkish are back vowels. The back vowels come out of the mouth and are easy to produce; therefore, it facilitates to teach Turkish speaking, reading, and writing.

4.4. The Use of Consonant

According to Table 1, it is seen that “k, l, m, and r” consonants are mostly used in Turkish. The total usage rate of these consonants is 25.96%. In other words, one-fourth of the sounds commonly used in Turkish is “k, l, m, and r” consonants. These are followed by the consonants “n, t, s, y, and d” and their total use is 17.77%. Then the “b, ş, z, g, ç, p, h, and c” consonants follow. Their total use is 12.27%. The least used in Turkish are “v, ğ, f and j” at a rate of 2.78%. In terms of literacy training, it is important that there are few consonants in a language and most of these consist of continuous consonants. With this understanding, the state of consonants in Turkish is examined. The results are given in Table 3.

Table 3.

The Use of Consonant in Turkish

	Voiced Consonants		Unvoiced Consonants		Total	
	Number (N)	Percent (%)	Number (N)	Percent (%)	Number (N)	Percent (%)
Continuous Consonants	231,044	29.3	57,613	7.31	288,657	36.61
Discontinuous Consonants	56,590	7.18	118,095	14.99	174,685	22.17
Total	287,634	36.48	175,708	22.3	463,342	58.78

As indicated in Table 3, consonants in Turkish are used at a rate of 58.78%. 36.62% of this consists of continuous consonants. The rate of continuous consonants in consonants is 62.30%. In other words, two-thirds of consonants in Turkish are continuous consonant. This situation facilitates the teaching of Turkish.

As seen in the table, more than half of the consonants in Turkish are voiced consonants. This makes the sounds in the language a melodic structure. With continuous and voiced consonants, processes such as to create melodies, to prolong and upgrade sounds, to be rhythm,

emphasize and toning, and to play making the learning process enjoyable and increases permanence (Bina,2011).

The status of consonants in Turkish and some European languages is examined by Gunes and Isik (2018b), it is determined that the language in which the continuous consonants are the most commonly used language in German, followed by English, Turkish, French, Spanish and Italian, the language in which the discontinuous consonants are the most commonly used language in English, followed by Turkish, German, Spanish, French and Italian. These results indicate that Turkish is superior to English and close to French and German.

4.5. The Sound Ranking for Teaching

In order to teach an effective literacy, first of all, the vowels and consonants should be listed according to the sound and letter properties of Turkish. In this process, the properties of the literacy training method are important. Since 2005, literacy has been taught by Voice-Based Sentence Method, that starts initially with sounds, and goes through the process of sounds to be combined to form syllables, words, and sentences. Hence, progress in the teaching process is from small items to large items. Each item learned (sound, syllable, and word) constitutes the infrastructure of the next item. Thus, students can easily integrate what they learn. It also focuses on developing students' skills in sentence and text formation. This is a requirement of the constructivist approach.

In the literacy process, sound groups are made to teach students the sounds and letters easily, to improve the sound and writing awareness. In the formation of sound groups, the sounds in the alphabet are sorted from the most used sounds to the less used ones, the letters are highlighted for ease of writing and teaching, the letters are listed as a vowel, a consonant for easy learning of all the sounds in the alphabet, and in process of teaching the consonant, continuous and discontinuous consonants are taken into account (Gunes & Isik, 2018a). What should be the sound ranking for teaching according to these principles?

According to the results of the research, the sounds in the Turkish alphabet are sorted from frequently used to less used;

- Generally: aekil mrntı suydo büşz gçph cvğöfj,
- Vowels: a, e, i, ı, u, o, ü, ö,
- Consonants: k, l, m, r, n, t, s, y, d, b, ş, z, g, ç, p, h, c, v, ğ, f, j,

- Continuous consonants: l, m, r, n, s, y, ş, z, h, v, ğ, f, j,
- Discontinuous consonants: k, t, d, b, g, ç, p, c.

Sound groups can be done by considering this sorting and the ease of writing the letters (Gunes & Isik, 2018b);

1st Group: e, l, a, k,

2nd Group: i, m, ı, t, n,

3rd Group: u, s, d, o, y,

4th Group: ü, b, ş, ö, z,

5th Group: g, ç, p, h,

6th Group: c, v, ğ, f, j.

5. Discussion and Conclusions

This study aimed to determine the properties of the sounds used frequently in Turkish in terms of the literacy training, firstly, the properties and the frequency of use of the sounds and letters in Turkish, the rate of vowels and consonants, the rate of continuous and discontinuous consonant. Then, the sounds to be given in the teaching of literacy are made in a rank so that students could learn Turkish easily. At the end of the study;

1. It was determined that the sounds in Turkish were easy to learn.
2. It was determined that there is a regular relationship between the sounds and letters in Turkish; therefore, Turkish is superior to most languages.
3. In the distribution of 788.316 letters in the 120.151 words, it was determined that the most frequently used sound “a”, the “e” and “k”, other sounds follow these three.
4. It was determined that the ranking of sounds frequently used in Turkish is “aekil mrntı suydo büşz gçph cvğöfj”, in the top five, there are three vowels and a consonant, in the top ten, there are 4 vowels and 6 consonants, the least used sounds are “v, ğ, ö, f and j”.
5. It was determined that 30% of the texts are written with “a, e, k” sounds placed in the first three in Turkish, 43% of the texts are written with “a, e, k, i, l” sounds placed in the first five in Turkish, 69% of the texts are written with “a, e, k, i, l,

m, r, n, t, l” sounds placed in the first ten in Turkish, in this respect, Turkish is superior to most languages.

6. It was determined that the vowels have used a rate of 41.22% and consonants have used a rate of 58.78% in Turkish. Most of the vowels are back vowel. Much use of vowels in a language facilitates literacy training.
7. The rate of continuous and discontinuous, voiced and unvoiced consonants is also important in literacy training. It was determined that the rate of continuous consonants in consonants in Turkish is 62.30%. In other words, two-thirds of consonants in Turkish are continuous consonant. More than half is voiced consonant. This situation facilitates the teaching of Turkish.
8. At the end of the research, it was determined that the most commonly used sound ranking in Turkish is “aekil mrntı suydo büsz gçph cvğöfj”. This rank should be considered in Turkish teaching.

As a result, it is seen that Turkish is superior to most of the European language with the properties of sound and this structure increases the teaching superiority of Turkish. According to these results, in terms of effective literacy training in our country what is recommended is as follows;

1. Making up a sound ranking according to the structure of our language in Turkish Curriculum,
2. Paying attention to the ranking of frequency of the vowels and consonants to be taught,
3. Updating course books and materials,
4. Conducting new research on the teaching superiority of Turkish.

Funding

This study was completed with the support of the Limitless Education and Research Association, Turkey (ID: SEADBAP2017-1).

CONFLICT OF INTEREST STATEMENT

The author declares that there is no conflict of interest in this study.

RESEARCH AND PUBLICATION ETHICS STATEMENT

The author declares that research and publication ethics are followed in this study.

AUTHOR LIABILITY STATEMENT

The authors declare that the "Conceptual Framework, Writing Draft, Analysis and Editing" part of this work was done by Prof. Dr. Firdevs GÜNEŞ, "Method and Manuscript, Visualization and Research " part of this work was done by Assoc. Prof. Dr. Ayşe Derya IŞIK.

REFERENCES

- Armbruster, B. & Osborn, J. (2001). *Put Reading first. The research building blocks for teaching children to read*. Jessup : National Insitute for Literacy.
- Béatrix Köhler D. & Martin D. (2002). *Je lis en couleur. Une démarche d'enseignement de la lecture face aux acquis de la recherche*, Lausanne : HEP.
- Bina, D. (2011). *La syllabe dans l'écriture inventée en français*, (these de doctorate), Université Toulouse le Mirail –Toulouse II, Français.
- Dehaene, S. (2011). *Apprendre à lire. Des sciences cognitives à la salle de classe*, Paris: Odile Jacob
- Demolin (2010). *Les langues dans le monde: entre diversité et disparition. Université Libre de Bruxelles & Laboratoire des sciences de la parole de l'Académie Universitaire Wallonie-Bruxelles* Chaire Francqui, FUNDP, Namur
- Gombert, J. E. & Fayol, M. (1992). *Psychologie cognitive de la lecture*. Paris: PUF.
- Gunes, F. & Isik, A. D. (2018a). *İlk okuma yazma öğretilimi açısından Türkçedeki ses ve harflerin incelenmesi*. II. Uluslararası Sınırsız Eğitim ve Araştırma Sempozyumu, 26-28 April 2018, Tam Metin Bildiri Kitabı (01.09.2018), 137-152, Muğla/Türkiye.
- Gunes, F. & Isik, A. D. (2018b). Türkçede sık kullanılan harfler ve öğretilmesi, *The Journal of Limitless Education and Research*, 3(1), 1 – 26, DOI:10.29250/sead.402700.
- Gunes, F. (2007). *Ses temelli cümle yöntemi ve zihinsel yapılandırma*, Ankara: Nobel Yayınları.
- Gunes, F. (2016). Türkçenin öğretim üstünlükleri ve zenginlikleri. *Milli Eğitim Dergisi*, 45 (210), 93-114.
- Jaffré, J-P. & Fayol, M. (1997). *Orthographes, Des systèmes aux usages*, Paris : Flammarion, Collection Domino.
- Morais, J. (1994). *L'art de lire*, Paris: Editions Odile Jacob.

- National Reading Panel (2000). *Teaching children to read : an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*, Rockville : National Institute of Child Health and Human Development.
- OCDE, CERI, Ontario, (2007). *Recherche sur le cerveau, apprentissages et acquisition de la lecture*, Ministère de l'Éducation de l'Ontario, Toronto, Canada
- Québec (2011). *Écrire Au Primaire, Programme de recherche sur l'écriture*, Gouvernement du Québec Ministère de l'Éducation, du Loisir et du Sport, Bibliothèque et Archives Canada.
- Sprenger-Charolles, E. (2003). *Apprentissage de la lecture et dyslexie, L'apport des sciences cognitives*, 11.12.2004 tarihinde www.coridys.asso.fr adresinden erişilmiştir.
- Stanké, B. (2001). *L'apprenti lecteur: activités de conscience phonologique*. Montréal: Chenelière.
- TDK. (2011). *Türkçe Sözlük*, 11. Baskı, Ankara: Türk Dil Kurumu
- Ziegler, J. C. & Goswami, U. (2005). Reading acquisition, developmental dyslexia, and skilled reading across languages: a psycholinguistic grain size theory. *Psychological Bulletin*, 131 (1), 3-29.